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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,008	01/11/2002	Reed J. Blau	1082-035	5219
7590	05/27/2004		EXAMINER	
Joseph A. Walkowski Traskritt, PC P. O. Box 2550 Salt Lake City,, UT 84110			FELTON, AILEEN BAKER	
			ART UNIT	PAPER NUMBER
				3641

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/046,008	BLAU, REED J.	
	Examiner	Art Unit	
	Aileen Felton	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 March 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-8, 10-14, 16-25, 68 and 69 is/are pending in the application.
- 4a) Of the above claim(s) 11-14, 20, 21, 23-25, 68 and 69 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-8, 10, 16-19, and 22 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/5/04</u> . | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Election/Restrictions

1. Claims 11-14, 20, 21, 23-25, 68, and 69 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7/28/2003. Claims 11-14, 20, 21, 23-25, 68, and 69, were all previously withdrawn.
2. An additional copy of the PTO-892 Notice of References cited by the examiner from the previous action has been attached per Applicant's request.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pawlak et al (4,128,443) in view of Fey (5,569,875).

Pawlak et al discloses a composition that is used as a substitute for black powder and avoids the extraneous smoke production and corrosion of the firearm that occur from the presence of charcoal and sulfur (col. 1, lines 9-25). The composition comprises a homogeneous mixture of 30-82.5 parts of an oxidizing agent and 14.5-45 parts of an organic carboxylic acid or oxidizable derivative (col. 2, lines 30-39). In col. 3, lines 13-20, many possible oxidizers are disclosed for use in the composition and

include potassium perchlorate and potassium nitrate. Also in col. 3, lines 45-65, many various carboxylic acids are disclosed for use in the composition and include terephthalic acid. The disclosure indicates that this composition is one embodiment of the invention and does not include sulfur whereas in a second embodiment of the invention sulfur can be used (col. 4, lines 26-35). The composition may also include a binder (col. 5, lines 10-35). However, there is not a disclosure of a mixture of oxidizers with amounts or a particular particle size of the oxidizers.

Fey teaches another black powder substitute that includes an organic acid with a mixture of oxidizers (col. 3, lines 28-35). In example III, a mixture of ammonium nitrate and potassium nitrate is used and indicates that the substitution of other oxidizers, including inorganic perchlorates, may be substituted for either the potassium nitrate or ammonium nitrate. Example III further suggests that the choice of oxidizer and ratios of oxidizer to fuel will vary depending on the use and particular ingredients selected. In col. 4, lines 20-30, it is shown that the oxidizer and fuel particles have an average particle size of 15 micron.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a mixture of oxidizers as taught by Fey since Fey suggests that it is known to use a mixture of oxidizers with a certain particle size in a similar composition to that disclosed by Pawlak that is a substitute for black powder. It is *prima facie* obvious to combine two compositions, each taught for the same purpose to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423. It is also obvious to vary the amounts of

the oxidizer since Fey suggests that these amounts will vary depending on the use of the propellant. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pawlak et al (4,128,443) in view of Fey (5,569,875) as applied to claims 1-8 and 22 above, and further in view of Wise et al (H72).

Neither Pawlak nor Fey disclose or teach the use of phenolphthalein.

Wise et al teaches the use of phenols and acids such as phenolphthalein or terephthalic acid with potassium nitrate as a substitute for black powder.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the phenolphthalein as the organic compound with the compositions disclosed and taught by Pawlak and Fey since Wise suggests that it is known organic compound to be used as a fuel. Additionally, both compounds are taught in Table 1 as organic fuels to be used in pyrotechnic powders and substitution of one fuel for another is obvious. Further Pawlak has disclosed that a wide range of derivatives are useful for the organic fuel in the invention.

6. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pawlak et al (4,128,443) in view of Fey (5,569,875) as applied to claims 1-8 and 22 above, and further in view of Weber (5,620,691).

Pawlak does not disclose the specific claimed binder.

Weber teaches the use of PVA a vinyl acetate polymer in a composition that is a substitute for black powder and includes phenolphthalein and potassium nitrate.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the binder as taught by Weber with the composition of Pawlak, since Weber teaches that it is a known binder to be used in a composition that is a substitute for black powder and because Pawlak discloses that binders can be used. The moisture uptake is an inherent property of the taught binder. As to limitations which are considered to be inherent in a reference, note the case law of *In re Ludke*, 169 USPQ 563; *In re Swinehart*, 169 USPQ 226, *In re Fitzgerald*, 205 USPQ 594; *In re Best et al*, 195 USPQ 430; and *In re Brown*, 173 USPQ 685, 688.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen Felton whose telephone number is 703.306.5751. The examiner can normally be reached on Monday-Friday 6:30-4:00, except alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703.306.4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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